

cont  
a'

compared with FSAP purified from the plasma pool. This reduces the possibility of a cofactor influence and increases that of a protein modification in the abovementioned sense. A surprising result was the apparently unreduced potential for activating factor VII. For this reason, mutants of this kind are particularly suitable for the abovementioned application as clotting-promoting agent, as described in the German Patent application 199 03 693.4, since their fibrinolytic potential is apparently limited. Said mutants may be prepared recombinantly or transgenically based on the findings described below of the nucleotide sequence modifications. However, they may, like the corresponding FSAP protein (single-chain or double-chain FSAP), also be isolated directly from natural sources such as blood plasma. The German Patent applications 199 03 693.4, 199 37 219.5 and 199 37 218.7 have already described methods which involve preparation of FSAP, preferably with the aid of immunoabsorption, as is illustrated in detail in the German Patent application 100 36 641.4. However, as far as it is known, the monoclonal antibodies used up until now do not discriminate between FSAP wild type and FSAP mutants. Accordingly, only monoclonal antibodies reacting specifically with the mutants can be used for preparing the mutants. It is possible to obtain the antibodies by immunization with the mutant. It is also possible to use peptides with protein regions corresponding to amino acids 389 to 397 (...SFRVQKIFK...) and/or 534 to 539 (...EKRPVG...) of SEQ ID NO:4 for immunization and for generation of corresponding antibodies according to known methods. In addition, said antibodies are also used to specifically detect said mutants, for example as reagents in detection methods such as ELISA Western Blots, in immunohistology or in fluorescence assisted cell sorting (=FACS).

09912559-072601